

North Vietnam's Alternative Means
of Maintaining Import Traffic
October 1969

6 Oct 69 Carver to Laurence Lynn (NSC) memo re 1 October Request
(forwarding reports, "North Vietnam's Alternative
Means of Maintaining Import Traffic"; "North Vietnamese
Capabilities to Counter a US Course of Action")

25X1 10 Oct 69 [] to Lynn memo re Questions Concerning CIA Intelligence
Memorandum, "North Vietnam's Alternative Means of
Maintaining Import Traffic"

Attachments: Table, North Vietnam: Seaborne Imports,
by Origin and Commodity, 1 July 1968-
30 June 1969 (Communist and Free World
countries)

Responses to Lynn questions re Communist
and Free World exports to North Vietnam

Lynn to [] memo, dated 9 Oct 69, re 25X1
CIA IM "North Vietnam's Alternative
Means of Maintaining Import Traffic"
(requesting additional info)

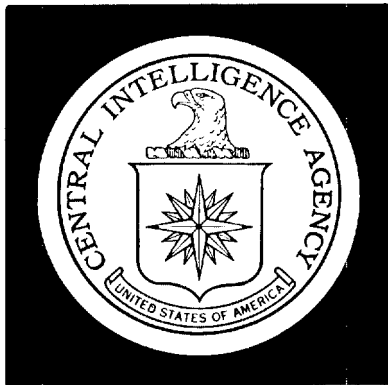
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DIRECTORATE OF
INTELLIGENCE

Intelligence Memorandum

NORTH VIETNAM'S ALTERNATIVE MEANS OF MAINTAINING
IMPORT TRAFFIC

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OCTOBER 1969

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CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
6 October 1969

INTELLIGENCE MEMORANDUM

North Vietnam's Alternative Means
of Maintaining Import Traffic

Introduction

This memorandum is our reply to a request that we assess certain measures that might be taken by North Vietnam in response to a US mining program. The analysis in this memorandum is focused specifically on the means by which North Vietnam would attempt, by using alternative transport routes, to maintain the large volume of imports that normally enters the country through the port of Haiphong. The following assumptions are used in making the analysis:

1. An extensive US mining program has successfully denied access to North Vietnam's major and minor ports, as well as all feasible lightering areas, to both oceangoing and coastal shipping.
2. The North Vietnamese have agreed not to contest the mining program and to transfer all import trade to the overland routes from Communist China.
3. There is sufficient Soviet and Chinese cooperation that strains in their relations are not a limiting factor in facilitating the overland movement of traffic.

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North Vietnamese Dependence on Imports

1. The limited size of its modern economy and the fact that it has always been a food-deficit country have made North Vietnam highly dependent on imports. This dependence has increased greatly during the war because North Vietnam has had to rely almost completely on external sources for combat materiel and has had to divert large amounts of manpower to nonproductive, war-related activities.

Level of Imports

2. North Vietnamese imports during the 12 months ending in June 1969 totaled 2.2 million tons. The bulk of this traffic -- about 95 percent of total imports -- was brought in through the port of Haiphong. Although rail imports amounted to only a small share of the total, rail transport is of particular significance as the principal channel for the import of combat materiel.

3. Estimated seaborne imports for the period 1 July 1968 - 30 June 1969 are shown in the following tabulation:

Goods	Thousand Tons			
	USSR and Eastern Europe	Communist China	Other	Total
Foodstuffs	330	500	50	880
Fertilizer	60	-	50	110
Petroleum	290	40	-	330
Timber	Negl.	-	30	30
General and miscellaneous	350	150	30	530
<i>Total a/</i>	<i>1,040</i>	<i>690</i>	<i>170</i>	<i>1,900</i>
Daily average				5.2

a. Because of rounding, the sum of the components may not equal the totals shown.

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4. North Vietnamese seaborne imports reached record totals this past year because of sharp increases in imports of foodstuffs and petroleum. During the 12 months ending in June 1969, for example, imports of petroleum were about 2.5 times their 1965 level. Imports of foodstuffs show an even greater increase, being some seven times greater than they were in 1965.

5. Estimates of rail imports by North Vietnam are much more tenuous than those for seaborne imports. On the basis of rather limited evidence, we estimate that rail imports during the period July 1968 - June 1969 were on the order of 300,000 tons, of which only about 50,000 tons were combat materiel. About 40 percent of total rail imports are estimated to come from the USSR and Eastern Europe and the rest from China.

6. More than 97 percent of North Vietnam's imports are from Communist countries. The USSR provides the greater share -- 44 percent -- of these imports, while Communist China accounts for almost 40 percent. The Soviets provide about one-third of North Vietnam's imports of foodstuffs, almost all of its imports of petroleum, and about one-half of its imports of fertilizers. The USSR also provides about 40 percent of North Vietnam's imports of general cargoes such as construction materials, industrial machinery, metal products, and transportation equipment. Communist China's trade with North Vietnam is dominated by foodstuffs, which accounted for almost three-fourths of the volume of seaborne imports from China during the past year. China also provides substantial imports of industrial machinery, construction materials, and transportation equipment. North Vietnamese economic imports from Free World countries are dominated by fertilizer imports -- mostly from Japan -- and by timber imports from Cambodia.

Foodstuffs

7. North Vietnam's domestic output of rice has declined steadily from 3.5 million tons of paddy rice in 1965 to 2.5 million tons in 1968. Since 1965 the North Vietnamese population has

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increased by about 5 percent and, in addition, the war effort has required more and harder work -- thus requiring a greater intake of calories. To fill the widening gap between production and consumption, North Vietnam has been forced to increase imports of foodstuffs substantially. Imports of foodstuffs by sea increased from about 120,000 and 80,000 tons in 1965 and 1966, respectively, to about 460,000 tons in 1967 and to more than 890,000 tons for the twelve months ending June 1969. Imported foodstuffs now supply one-fifth of the estimated total calories consumed by the North Vietnamese. With per capita food consumption at close to minimum levels, the continued accessibility to food imports is essential for the maintenance of the population's health and productive capacity.

Petroleum

8. Seaborne imports of petroleum during July 1968 - June 1969 exceeded 330,000 tons. Almost 95 percent of the petroleum imports originated in the USSR, and 95 percent were delivered by sea. The high level of consumption of petroleum during the past year reflects the intensity of military activity and the greater use of trucks, construction equipment, and marine craft.

Military Imports

9. There is little hard evidence with which to quantify precisely the current level of North Vietnam's imports of military goods. Historically, however, there has been sufficient information -- when combined with aerial photography, data on ammunition expenditure rates, and changes in the enemy order of battle -- to permit estimates of the volume of military imports, and these estimates have proved to be compatible with other intelligence occasionally obtained from collateral sources. In addition, the intelligence community estimates that all of North Vietnam's imports of combat materiel and major military hardware items are delivered by rail rather than by sea. Large amounts of war-supporting materials, such as foodstuffs and petroleum, however, enter North Vietnam through the port of Haiphong.

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10. By the end of 1968, adjustments to the cessation of the US bombing of North Vietnam, which permitted a reduced level of imports of military goods needed for air defense purposes, had probably been completed, and imports of military equipment are now estimated to be at relatively constant levels, though well below the level of the first half of 1968. The high number of attacks flown by US aircraft in the Panhandle of North Vietnam between 1 April and 31 October 1968 and the continued attacks against Laos after the 1 November bombing halt indicate a relatively constant North Vietnamese requirement so that imports of military goods such as ammunition have probably remained fairly stable during 1969. With the limited evidence on hand, we estimate that in volume terms deliveries of military goods have probably leveled off at an annual rate of nearly 50,000 tons.

Adequacy of Stockpiles

11. There is insufficient direct intelligence to permit a precise quantification of North Vietnam's reserves of essential economic goods or its stockpiles of military goods. The information that is available, however, supports a general conclusion that with but few exceptions the stockpiles of essential economic and military goods are maintained at relatively high levels.

Economic Goods

12. Photography of the port of Haiphong since the bombing halt has shown increases in the volume of cargo in open storage despite a faster removal of cargoes from the wharf area. About 60 percent of the area was occupied by cargo at the time of the total bombing halt in November. Although the monthly level of cargo in open storage has fluctuated considerably since then because of changes in the discharge rate and the effects of monsoon weather on land transport and lightering, at the end of August 1969 about 70 percent of the available area was occupied by cargo.

13. Significant increase in imports of construction material (mostly agricultural products), vehicles,

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and earthmoving equipment since the total bombing halt have considerably altered the types of cargo observed in open storage. Prior to the halt the open storage area was dominated by heavy equipment and machinery, stockpiles of sacked grain, and stockpiles of tires, most of which remained in the area for many months at a time. Since 1 November, much of the heavy equipment and machinery and tires has been moved out of Haiphong and replaced by incoming construction materials. Turnover of most of the cargo stored in the open has been at a relatively higher pace than before November, and this has been especially true of foodstuffs.

14. With but few exceptions, we estimate that North Vietnam's stockpiles of economic goods are sufficient to sustain the economy for several months at present rates of consumption. Food supplies are currently at a low level, but the harvest of the tenth-month rice crop will be available next month. Industrial equipment needed for restoring and/or maintaining industrial output has been imported during 1969 in increasing amounts, and limited observations of storage areas in August 1969 showed a variety of industrial equipment and materials on hand. A high level of petroleum imports and a well-developed dispersed storage system also point to the availability of adequate supplies of petroleum.

Supplies of Foodstuffs

15. There is no direct intelligence on the stockpiles of foodstuffs in North Vietnam. It is apparent, however, that supplies of rice are usually abundant immediately after the two rice harvests in May-June and October-November. Moreover, some subsidiary crops that are harvested between the rice harvests help to take up the slack. Assuming no measurable carryover of foodstuffs before the 1968 tenth-month rice harvest, an estimate of the food balance, based on estimated production, imports, and consumption, shows the trend in the reserve situation during 1969 (see the table). As the table shows, supplies on hand are at a low level in October but increase significantly after the tenth-month harvest in November. The availability of foodstuffs becomes most critical during the first half of the year.

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Estimated Food Balance in North Vietnam
1969

Thousand Metric Tons

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Carried over	1,640	1,355	1,065	795	500	225	1,545	1,245	945	655	365	2,075
Production ^{a/}	--	--	--	--	--	1,600	--	--	--	--	2,000	--
Imports	75	70	90	65	85	80	60	60	70	70	70	
Available	1,715	1,425	1,155	860	585	1,905	1,605	1,305	1,015	725	2,435	2,145
Consumption	360	360	360	360	360	360	360	360	360	360	360	360
Food	1,355	1,065	795	500	225	1,545	1,245	945	655	365	2,075	1,785

^{a/} Including both rice and subsidiary food crops.

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Supplies of Petroleum

16. On the basis of North Vietnam's imports of petroleum during the past year and estimates of consumption patterns, we estimate that the stocks of petroleum on hand at the end of June totaled about 100,000 tons, equal to about 100 days' supply at the estimated 1968 consumption rate.

Industrial Supplies and Equipment

17. Scattered references to stockpiling of industrial equipment and supplies indicate that sufficient levels are on hand to meet North Vietnam's requirements for several months. Although current consumption requirements are difficult to gauge, the large amount of such goods seen in photography of known storage and distribution areas suggests that there is sufficient stockpiling throughout the country. For example, photography of mid-1969 of the Kinh No transshipment and storage depot north of Hanoi, one of the major storage areas in the country, revealed more than 100 mobile generators; large quantities of mobile compressors, cables, and pipe; and large stocks of crated industrial and agricultural equipment. At the An Khe Barracks and Storage Area near Cat Bi Airfield, August photography showed twice as many vehicles as in May, including significant numbers of farm tractors and construction and military vehicles. A similar high level of supplies and equipment has been noted in other storage areas in Hanoi and Haiphong.

Construction Supplies and Equipment

18. Most supplies for use in construction appear to be at low levels, although there are stockpiles of construction equipment and structural steel. Numerous articles critical of the progress of the construction industry have appeared in the North Vietnamese press since the beginning of the year. Domestic production of building materials such as bricks, tiles, and cement has not kept up with increased construction requirements. Cement production, for example, is estimated to have been only about 210,000 tons for the first nine months of 1969, less than half the consumption of cement

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for a comparable period in 1965 and 1966. The tight supply situation in construction materials is not critical, however, since reconstruction projects can be deferred or the pace of reconstruction slowed if imports are denied or reduced.

Military Supplies

19. Military stocks in North Vietnam appear to be maintained in very large amounts. Data on North Vietnamese imports, information on the flow of supplies into Laos and South Vietnam, and photographic intelligence suggest that the North Vietnamese have successfully implemented a logistics doctrine that provides them a deep cushion of military supplies.

20. We know [redacted]

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[redacted] that North Vietnamese logistics planners call for "combat reserves" (supplies prepositioned on the battlefield) to be adequate for three months of combat. "Campaign reserves" (supplies maintained in rear areas close to combat fronts) are planned to be adequate for six months of combat. In addition, the North Vietnamese maintain so-called strategic reserves which are massive and diversified stockpiles located in safe areas in Laos and North Vietnam.

21. There are many indications that large military stockpiles have been accumulated in North Vietnam and Laos. Although our estimates of imports of ammunition are subject to a wide margin of error, the data that are available indicate that during 1968 these imports were on the order of four times greater than the amounts expended or lost by enemy forces in both Laos and South Vietnam. Even though ammunition imports fell sharply following the cessation of the bombing of North Vietnam, the stockpiles of the particular types used in Laos and South Vietnam are apparently being maintained at high levels. Reliable intelligence on shipments to just one of the several logistics stations in North Vietnam handling traffic funneling into the Laotian Panhandle indicates a standard storage level of about 700 tons of ammunition. This amount could meet the estimated North Vietnamese-originated requirements for all Viet Cong/North Vietnamese

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forces in southern Laos and South Vietnam for several weeks. Another of the military stations in the Laotian Panhandle responsible for the transshipment of supplies to South Vietnam had over 3,200 tons of supplies in storage near the end of May. The reported stockpiles for combat elements operating in Laos are also high. Analysis of recent reports from thirteen antiaircraft battalions indicated they had a six months' reserve of ammunition.

The Overland Option

22. This section of the memorandum analyzes the implementation of a decision to maintain North Vietnam's import traffic by exclusive reliance on land transport routes. It discusses the impact of the diversion of seaborne imports on the transport systems of the USSR, Communist China, and North Vietnam and estimates the capabilities of these systems and the time required to normalize the overland transport arrangements.

Impact on the Trans-Siberian Railroad

23. The diversion to rail traffic of Soviet and East European exports to North Vietnam would have a surprisingly small impact on the capabilities of the Trans-Siberian Railroad. More than 70 percent of Soviet seaborne trade with North Vietnam currently is shipped out of Vladivostok, so that the greater part of the trade has been part of the established traffic flow on the Trans-Siberian Railroad.

24. The normalization of overland traffic would mean that slightly more than 3,000 tons a day would be routed by the Trans-Siberian Railroad. However, only about 1,200 tons of this traffic would be cargo diverted from normal movement through European ports. This would be a light burden on a rail line which is estimated conservatively to have a minimum capacity of about 50 trains, or 100,000 tons, each way per day. The addition of 1,200 tons a day in real terms is the equivalent of only one additional train per day. Only about 700 additional rail cars

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would be required,* out of a total Soviet inventory of more than one million cars. About 400 of the additional cars would have to be tank cars, which would amount to only about 2.5 percent of the 15,500 tank cars in the Soviet inventory. The limiting factor on traffic to China would be the restrictive section of the road which lies just to the east of Lake Baykal. A segment of approximately 290 kilometers is capable of handling only 50 trains each way per day, or approximately 100,000 tons. However, the approximately 3,000 tons per day which would be routed on the Trans-Siberian is well below 5 percent of the minimum capacity available. On the basis of fragmentary data, however, our best estimates indicate that less than 65 percent of the capacity of this sector of the Trans-Siberian Railroad is used for economic traffic. Thus the addition of one train a day should be easily absorbed.

25. Because rail traffic to Communist China has declined so drastically in recent years, and the transshipment facilities have been kept intact, it seems unlikely that transshipment of cargoes from Soviet to Chinese railroads would delay the movement of this traffic to any significant degree. The minimum capacity of the rail lines servicing the two major transshipment areas at Manchouli and Erhlien, China, is 50,000 tons per day.

26. Based on the above, it seems likely that the reorientation of traffic from Black Sea or Baltic Sea ports to the Trans-Siberian Railroad could, with the requisite priorities, be accomplished in about two weeks. By the end of a two-week period, therefore, overland traffic to North Vietnam via the Trans-Siberian Railroad should be pretty well normalized. Even if the adjustment period were to take twice as long, the flow of supplies on the Trans-Siberian Railroad would be completely reestablished well before there was a significant diminution of North Vietnam's stockpile of essential goods.

* Based on an average haul of 2,500 kilometers, a 20-day turnaround time, and an average of 35 tons per carload -- 40 tons per car for petroleum tank cars.

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Impact on Chinese Railroads

27. The convergence of all North Vietnamese import traffic on the Chinese railroads would represent a daily volume of 6,000 tons of goods. This volume is equivalent to what can be carried by about 200 standard-gauge freight cars or about 1,000 trucks a day. The additive burden to the Chinese railroad system would be something on the order of 5,300 tons a day, including about 1,000 tons a day of petroleum. This traffic would require the allocation of about 1,700 freight cars in constant operation and about 350 petroleum tank cars. In each case these allocations are only about 2 percent of China's inventories of freight and tank cars. The inventory of freight cars in Communist China has increased about 25 percent since 1959, but transportation performance is less now than it was in 1959. Although the railroad system is not operating as efficiently now, the evidence we have suggests that China has ample freight cars and would have no difficulty in making the required number available to transport the imports of North Vietnam that formerly moved by sea.

28. Combined Chinese rail line capacity to North Vietnam totals about 11,400 tons each way per day. The major and most direct route, via Kwangsi Province, connects with the dual-gauge rail system at Dong Dang, providing an uninterrupted standard-gauge road to within a few miles of Hanoi. A more circuitous route through Yunnan Province connects with the meter-gauge rail system at Lao Cai in northwestern North Vietnam. This latter rail line most likely would perform as an overflow or alternate route in the event of problems arising on the primary rail line. Although we cannot judge precisely how long it would take to reallocate the traffic to Chinese railroads, it would seem that the adjustments could be made well before any shortages would develop in North Vietnam because of the cessation of sea imports.

2. Movement from the Chinese Border

29. North Vietnam's total rail and seaport imports during the most recent period of record amounted to an average of about 6,000 tons a day. The daily movement of 6,000 tons of goods should not overly tax an overland system which has a

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combined rail, road, and water route capacity of almost 16,000 tons per day during the dry season and 13,000 tons per day during the wet season. As shown in the tabulation below, the capacity of North Vietnam's rail connections with China are 50 percent greater than the volume of goods that must be imported. The roads and waterways provide an additional cushion that can be used to avoid bottlenecks and to establish additional routes for moving goods from various areas of South China into North Vietnam.

	<u>Tons per Day</u>
Daily average imports	6,000
Route capacities	
Railroads	9,000
Roads	5,000 (2,300) <u>a/</u>
Red River	1,500
Total surface	15,900 (12,800) <u>a/</u>

a. The capacity of the roads declines during the wet season, which extends from June through September in the northern areas of North Vietnam.

30. The capacities given above are conservative estimates based on a wide variety of factors, including the extent and conditions of facilities, the availability of equipment, and the employment of a normal labor force. Improvisation can enable normal rail capacities to be temporarily exceeded for considerable periods of time when the demand is great or the regime assigns a high priority to moving supplies over the system. Furthermore, the normal capacities could be expanded by relatively simple additional construction such as the installation of passing tracks at more frequent intervals -- expedients which could be accomplished in a week or two under high priority. The capacities of the roads could likewise be quickly increased by improved grading or the more intensive use of power to repair road segments that got washed out during the rainy season. The task of maintaining the complex than the allocation of additional construction

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materials and labor. During the bombing of North Vietnam, up to 600,000 full-time and part-time employees were engaged in air defense or bomb damage repair. If even a small fraction of this labor force were mobilized to maintain and improve the main lines of communication with China, there is no doubt that the capacity of these lines could be rapidly expanded.

31. North Vietnam has adequate inventories of railroad rolling stock and motor vehicles. The inventory of railroad rolling stock currently is estimated at 115-130 locomotives* and 2,000-2,300 meter-gauge freight cars. The country's railroad system consists of dual-, standard-, and meter-gauge lines. The main rail link between China and Hanoi -- the dual-gauged Dong Dang line -- could be operated by drawing from China's inventory of standard-gauge rolling stock, which is estimated at 6,100 locomotives and 160,300 freight cars. An alternate route from the border to Hanoi via Kep and Thai Nguyen also could use Chinese standard-gauge equipment.

32. As of mid-1969 the estimated North Vietnamese motor vehicle inventory ranged between 6,500 and 11,500. The wide range stems mainly from a lack of import data, particularly for overland shipments, and the uncertainties associated with confirming the large number of vehicles reportedly destroyed by airstrikes in Laos. A lack of any evidence of a shortage of motor vehicles during 1968 through June 1969, plus a substantial amount of photointelligence revealing continuing large vehicle stockpiles within North Vietnam, suggests that a firm vehicle inventory probably would be in the upper limits of the estimated range.

33. Overland imports in North Vietnam are currently carried by standard-gauge trains which originate in China and move across the border to their terminal destination. The current level of overland traffic requires about one such train per day. If all imports were to come overland, the

* Including the recent acquisition of 20 small diesel locomotives imported from the Soviet Union.

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6,000 tons per day would require about six standard-gauge trains and about 400 standard-gauge freight cars, in both cases a minuscule part of the Chinese inventory. On the much less likely premise that the North Vietnamese would be required to furnish rolling stock for the augmented hauls -- the impact, on North Vietnam would be fairly significant. The 6,000 tons per day would require about 18 meter-gauge trains, the only gauge presently owned by North Vietnam. In addition, about 800 meter-gauge freight cars would be required, almost 40 percent of the estimated inventory of such cars in North Vietnam.

Methods of Implementation and Problem Areas

34. The complete halt of imports by sea will obviously create problems for the foreign trade functionaries and transportation ministries of North Vietnam, China, and the USSR. If these three countries should agree to move the seaborne import tonnage via the overland route, it will be necessary to initiate time-consuming negotiations and planning. Plans for freight movement in all three countries would require some revision, and adjustments would have to be made to release the locomotives, freight cars, and personnel needed to absorb the additional freight. However, neither the tonnage involved nor the equipment required is great in terms of Chinese and Soviet resources. The added burden of one train a day would not be crippling to a line that handles as many as 180 trains a day and is not being used at full capacity.

35. Freight cars in both countries are allocated in accordance with an elaborate traffic plan. Appropriate railroad bureaus and regions in both countries would have to be instructed to revise the plan and give priority to the North Vietnamese traffic. Under the assumptions of this analysis, we assume that the required degree of Sino-Soviet cooperation exists and that along with it would come the requisite priorities. Therefore, we estimate that the adjustments would be rapid enough to attain the desired traffic levels within a fairly short time and that any extended delay would be at the cost of Soviet or Chinese domestic traffic rather than that bound for North Vietnam.

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36. With sizable inventories of transport equipment, the time required to reorganize traffic movements within North Vietnam would probably range from two to three months. Given the priorities that would be attached to the task and the considerable experience gained in keeping traffic moving during the bombings, it seems unlikely that any disruption of traffic would be prolonged or extensive. Moreover, the North Vietnamese in all probability anticipated a mining program during the Rolling Thunder campaign and undoubtedly already have well-developed and detailed contingency plans to cope with the possibility of a mining program.

The Sea-Land Option

37. This section considers the working of a North Vietnamese option whereby the seaborne imports previously shipped through Haiphong are routed to the Chinese port at Fort Bayard and then trans-shipped along overland routes to North Vietnam. The analysis first discusses briefly the origin and volume of North Vietnam's seaborne imports. It then considers the decisions that would have to be made about diverting that shipping on the high seas which might be en route to Haiphong at the time the mining program was carried out. Finally, the analysis discusses the shipping of land transport problems of normalizing the flow of North Vietnamese imports through Fort Bayard.

Origin of Seaborne Traffic

38. A total of 438 ships with about 1.9 million tons of cargo called at Haiphong in the 12 months ending on 30 June 1969. The cargo was overwhelmingly of Communist origin. The small share of imports from the Free World consisted principally of timber from Cambodia and fertilizer from Japan. About 70 percent of the seaborne imports originated in Far Eastern ports. With the exception of some 50,000 tons from Cuba, the remainder originated in European ports. Ship arrivals in North Vietnam for the period and imports by port of origin are shown in the following tabulation:

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Port of Origin	Ship Arrivals ^{a/}	Cargo (Thousand Metric Tons)
Far East	<u>354</u>	<u>1,385</u>
Soviet	164	500
North China	57	100
South China	61	210
North Korea	11	50
Japan	7	30
Cambodia	12	30
Other	1	5
Europe	<u>79</u>	<u>455</u>
Soviet ^{b/}	39	250
Eastern Europe	40	200
Western Europe ^{c/}	--	5
Cuba	<u>5</u>	<u>50</u>
Total	438	1,890

a. Excluding 42 ships that arrived in ballast principally to load coal.

b. Less than 5,000 tons originated from Soviet ports in the Baltic Sea; the remainder originated from Black Sea ports.

c. This cargo was picked up in Western Europe by ships sailing from East European ports.

39. Three-quarters of the ships engaged in the North Vietnamese trade were Communist-flag ships. The majority of the 120 Free World ships that called at Haiphong were under time charter to China and carried cargo from North China. The Chinese normally use Free World ships for this voyage to avoid the threat of harassment and seizure to their own flag ships in the area of Taiwan.

The Immediate Diversion Problem

40. Our analysis of shipping to North Vietnam during the 12 months ending June 1969 indicates that on the average about 10 ships were en route to North Vietnam at any one time -- eight ships from

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ports in the Far East and eight ships from European and other ports. These ships could be carrying as much as 80,000 tons of goods, including an estimated 7,000 tons of petroleum. On the basis of the probable average disposition of these ships and assuming a decision not to recall ships that are beyond the half-way point, we believe the following decisions would be made. Four of the ships en route from European and other ports with 24,000 tons of cargo would be recalled and four ships with 24,000 tons of cargo would be diverted to Fort Bayard. Of the ships en route from Far East ports, we estimate that four ships with 16,000 tons of cargo would be recalled and four ships with 16,000 tons of cargo would be diverted to Fort Bayard. The total to be diverted to Fort Bayard would be 40,000 tons. These diversions could be made quickly by using normal shore-to-ship communications, and the voyage time would not be appreciably different than if the ships had proceeded to Haiphong.

*Complete Diversion of Seaborne Traffic
to Fort Bayard*

41. The complete diversion of seaborne traffic to Fort Bayard should be carried out insofar as shipping is concerned with minimal disruption because it would require no fundamental reallocation of the shipping already committed to the trade. A normalization of North Vietnam's seaborne import trade through Fort Bayard would actually require the commitment of less shipping than is presently committed to the Haiphong trade and the shipping could be used more efficiently. A decision to move cargoes from Fort Bayard overland to North Vietnam would mean, for example, that the 210,000 tons of cargo previously carried on 61 voyages from South China ports would undoubtedly be diverted to rail for shipment to North Vietnam.

42. The diversion of the remainder of the shipping carrying North Vietnam's seaborne imports to Fort Bayard would involve about 377 ship calls annually. This shipping would have to move nearly 1.7 million tons of cargo, the equivalent of about one ship per day with 4,500 tons of cargo. The total diversion would involve 293 ships annually from ports in the Far East with about 1.7 million tons of cargo, and 84 ships from European and other ports with 500,000 tons of cargo.

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43. The actual number of ships required to move the 1.7 million tons of cargo could be reduced slightly. Fort Bayard can handle ships with considerably greater draft than Haiphong; because of silting, the draft of ships at Haiphong is limited to about 26 feet, whereas wharves at Fort Bayard can handle ships with up to a 31-foot draft, and the harbor can accommodate drafts up to 35 feet. This greater depth and the existence of better cargo-handling facilities would mean that ships, particularly the large-hatch Soviet ships, could deliver larger loads.

44. The diversion of ships to Fort Bayard would not significantly change voyage times. Ships sailing from the Far East ports would be able to reduce their normal eight to nine day voyage to Haiphong by about one day. The voyage time from European ports to Haiphong of 35 to 40 days would remain unchanged.

*Transport from Fort Bayard to the North
Vietnamese Border*

1. Port Problems

45. Our only estimate -- based on very limited information -- of the capacity of the port at Fort Bayard is for the discharge of military cargo with ship's gear. This estimate, 5,080 metric tons per day, undoubtedly understates the actual capacity of the port for commercial and military cargo. Storage facilities for 65,000 tons of POL also are available in the port area. The daily average volume of dry cargo (3,600 tons*) that would be diverted to Fort Bayard would be almost 70 percent of the port's daily military discharge capacity. The 900 tons of POL that would be diverted represents only 7 percent of the estimated POL unloading capacity of the port and an extremely small percentage of the storage capacity. In terms of economic costs, however, this port is believed to be the one most likely to be used for traffic that might be diverted from Haiphong. It would not

* The actual daily volume of seaborne shipments into Haiphong is 5,200 tons, including 900 tons of POL and 700 tons of cargo from South China. The 700 tons of dry cargo from South China would not move through Fort Bayard. Estimates are based on the linear feet of wharfage, but since POL is pumped into storage it would not take up any port capacity.

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increase the sea distance from the Black Sea and North Sea ports and would provide the shortest rail route to North Vietnam. The wharfage area at Fort Bayard is limited to only two large cargo vessels; however, there are anchorages for an unlimited amount of vessels where lightering could take place and increase the port handling capacity substantially.

2. Rail Routing

46. The rail distance from Fort Bayard to P'ing-hsiang of 381 miles would result in a turn-around time of approximately four days. Considering this factor and an average load per car of 35 metric tons, about 520 cars and 35 locomotives would be required in constant operation at all times to carry 4,500 metric tons per day of imports (dry cargo plus POL) that would move from Fort Bayard, representing far less than 1 percent of the Chinese inventory of rail cars and locomotives. This volume of traffic would amount to 75 percent of the daily capacity (6,000 tons) of the rail line from the port to the North Vietnamese border. The limiting capacity of Fort Bayard would be at the port, however, because any shortage of rail capacity could easily be supplemented by trucking or the rail capacity might be increased with the addition of sidings in a very few weeks. In total, it is likely that a month to six weeks would be required before traffic through the port to North Vietnam would be normalized.

Conclusions

47. The diversion of North Vietnam's seaborne trade to overland routes via China would force Hanoi to undertake an extensive revamping of normal transportation arrangements and would require modest additional logistical adjustments by the USSR and China. In addition, the transportation organizations of all three countries would be beset with considerable administrative tasks in setting up alternative shipping routes. In no case would the costs of such adjustments be high, and it is difficult to foresee that it would be considered a decisive factor in shaping Hanoi's commitment to a continuation of the war in South Vietnam.

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48. The mining program would result in the immediate diversion of seaborne traffic involving only 80,000 tons of supplies, some to be shuttled into North Vietnam via the port of Fort Bayard in South China and the remainder -- perhaps about half -- to return to their port of origin for overland transit of China.

49. The reorientation of traffic to overland routes could be accomplished in a very short time, however. The traffic from the USSR and Eastern Europe now moving by sea could be shipped on the Trans-Siberian Railroad with the addition of only one train a day. The added burden on the Chinese railroads would be somewhat greater but is still well within their traffic capacities and would require only 1 to 2 percent of China's inventories of transport equipment.

50. All aspects of the logistical readjustments would probably be completed within one month in both the USSR and China and would take no more than two to three months in North Vietnam, at which time Hanoi could expect the flow of supplies to continue at pre-mining levels. Both military and economic stockpiles in North Vietnam are adequate to support a continuation of current levels of consumption during this emergency period, with the possible exception of petroleum which could be shipped in from China in higher than normal quantities if necessary.

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CIA Control No. 6204

MEMORANDUM OR: Dr. Laurence E. Lynn
Staff Member
National Security Council
Executive Office Building

SUBJECT : Questions Concerning CIA Intelligence
Memorandum, "North Vietnam's Alternative
Means of Maintaining Import Traffic"

1. Attached for your information are the responses to the questions raised by you on 9 October. I am also attaching for your use a copy of a recent memorandum "The Current Capabilities of the Trans-Siberian Railroad: A Preliminary Review." In addition I am attaching a table that will give you more specific data on the origin and volumes of North Vietnamese imports. The differences between the figures in this table and those used in subject report are simply a matter of rounding.

2. The following comments will clarify other points raised in your 9 October memorandum:

a. The reference on page 10 to the 70 percent of imports from the Soviet Union that is shipped from Vladivostok is not the same 70 percent referred to on page 16. The latter refers to imports from all Far Eastern ports and includes imports from the USSR, China, North Korea, Japan, Cambodia, Singapore and Hong Kong.

b. The 1,200 tons a day that would be diverted to overland movement in our analysis does not include 720 tons a day of FOL. You will note in the attached table that virtually all of North Vietnam's FOL imports come out of the Soviet Far East. Only about 13,000 tons or less than 5 percent moves from Black Sea and Baltic ports.

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c. The fact that petroleum accounts for only 7,000 of the 80,000 tons enroute to North Vietnam by ship at any given time is easily explained. Some 330,000 tons of petroleum were delivered to Haiphong by sea during the 12 months ending 30 June 1969. This represents an average daily volume of 900 tons and we estimate that the average sailing time for petroleum shipments to Haiphong is 8 days. Therefore, to maintain imports at this daily level it is necessary that 7,000 tons of petroleum be enroute at any given time. In actual practice we find that there normally are two Soviet tankers enroute to Haiphong from Soviet ports in the Far East. The tankers normally used in this trade have a capacity of about 4,500 deadweight tons and normally carry 4,000 tons of petroleum.

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Deputy Director
Economic Research

Attachments: (3)

1. Questions.
2. Table.
3. ER IM 69-121 (Cy 55).

Distribution:

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*Question 1. How is the figure 1,200 tons/day derived?
It is more than 30% of 3,000 tons/day
and, a fortiori, more than 30% of the
"imports from the Soviet Union."*

The 1,200 tons a day represents that cargo normally shipped by sea from European ports to North Vietnam. As shown in the tabulation on page 17 of the subject report, the seaborne trade from European ports included the following:

<u>Ports of Origin</u>	<u>Cargo (Thousand Metric Tons)</u>
Soviet	
Black Sea	245
Baltic	5
Eastern Europe	200
Western Europe	5
Total	<u>455</u>

On the assumption that the entire 455,000 tons is sent exclusively on land transport routes, the diversion over a one-year period represents an addition of 1,200 tons a day to the traffic normally carried on the Trans-Siberian Railroad. In terms of the origin of these imports, the 1,200 tons a day represents a 100 percent diversion of seaborne imports from Eastern and Western Europe but only a 30 percent diversion of total seaborne imports from the Soviet Union.

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Question 2. Can you show the origins of the shipments of each category of imports (either port of origin or, if possible, inland point of shipment)?

Imports from the USSR

Foodstuffs

Virtually all of the foodstuffs exported from the Soviet Far East was made up of wheat flour. The Soviet Far East is a wheat-deficit region, thus most of the wheat probably moved by rail from the western part of the USSR, most likely the wheat-surplus "New Lands" area (Kazakhstan and West Siberia) which centers on Omsk. If these shipments were diverted overland to China, the mileage would be reduced by some 2,000 miles, the distance between the southbound spur lines* off the Trans-Siberian and Vladivostok. During the latter half of 1968, some of the wheat also may have been of Canadian origin.

The small amounts imported from the European USSR originate in the central Ukraine, with Kiev representing the most likely average point of origin.

Petroleum

Most petroleum imports come from the Soviet Far East, which is an oil-deficient area. Local sources of petroleum satisfy only about 30 percent of the demand, and the deficit is made up through shipment of petroleum eastward from Irkutsk.** Any petroleum shipped from the Soviet Far East to North Vietnam must be offset through shipments into the Far East. If oil shipments to North Vietnam from the Far East by water were shifted to rail, this would require no change in the quantity of oil moved by rail in the USSR, but would shorten the distance to be moved

* The two main spurs junction with the Trans-Siberian at Tarskaya and Ulan-Ude, 1,855 and 2,263 miles west of Vladivostok, respectively.

** Oil shipments east from Irkutsk amount to about 5 million tons per year (14,000 tons per day). Shipments from the Far East to North Vietnam during the year correspond to less than 5 percent of this amount.

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on the Trans-Siberian. The small amounts imported from the European USSR originate in the Leningrad area.

General and Miscellaneous Cargoes

The industrial area centered around Moscow is the source of most of North Vietnam's imports of general cargo such as machinery, transportation equipment, building materials, clothing, and consumer durables.

Machinery and Equipment

The most important of these plants are located in the area around Moscow, which probably is the most important supplier of precision instruments, machine tools (Krasnyy Proletariy Machine Tool Plant) and motor vehicles (Likhachev Motor Vehicle Plant). Various types of machinery and some steel products come from the Ukraine, such as tractors from the Dnepropetrovsk Tractor Plant, the Gor'kiy Motor Vehicle Plant, the Gor'kiy Milling Machine Plant, and the Volgograd Tractor Plant. Byelorussiya provides both trucks and tractors (Minsk Motor Vehicle Plant and Minsk Tractor Plant). Another important area is the Urals, which provides large tractors, bulldozers, and graders (Chelyabinsk tractor and road machinery plants).

Principal Soviet Plants Producing Machinery
and Equipment for North Vietnam

Volgograd Tractor Plant
Minsk Tractor Plant
Dnepropetrovsk Tractor Plant
Likhachev Motor Vehicle Plant -- Moscow
Gor'kiy Motor Vehicle Plant
Kremenchug Motor Vehicle Plant
Krasnyy Proletariy Machine Tool Plant --- Moscow --
lathes
Gor'kiy Machine Tool Plant
Ulyanovsk Motor Vehicle Plant
L'vov Bus Plant
L'vov Motor Vehicle Plant -- truck cranes
Chelyabinsk Tractor Plant

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Much of the small amount of general and miscellaneous cargoes shipped out of Vladivostok to North Vietnam originates in plants in the western USSR, and is moved east on the Trans-Siberian. Movement through China would, as with foodstuffs and POL, shorten the rail distance considerably.

Cement

Cement is produced in more than 100 major plants throughout the USSR. It is not possible to identify the points of origin of that which is sent to North Vietnam. The total amount shipped in 1968, however, was less than 100 tons a day. It is likely that most of this commodity was shipped from the Black Sea and that it would have originated within a few hundred miles of the port area. Thus diversion distances would be much the same as discussed earlier for fertilizer and food shipped from the Black Sea.

Chemicals

The chemical industry is highly diversified but like that of machinery and equipment is centered west of the Urals in the European USSR. The very small tonnage of the chemicals and pharmaceuticals shipped to North Vietnam -- slightly more than 10 tons per day in 1968 -- probably originated in the western USSR and would have been shipped mainly from the Black Sea.

The Russian Republic produces perhaps three-fourths of the total chemical output of the USSR, and plants within a radius of about 600 miles of Moscow probably account for one-half or more of the total chemical output of the USSR. A very large chemical complex is located at Dzerzhinsk, about 225 miles east of Moscow. A few large producers of chemical products are to be found in West Siberia in the Kemerovo area and in East Siberia near Irkutsk, but chemical production is negligible in the areas farther east.

Imports from Communist China

Petroleum Products

The major sources of the Chinese petroleum products shipped to North Vietnam are the Shanghai and Nanking oil refineries in East China.

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Food Products

The rice, sugar, vegetable oil, and other vegetable products shipped by China to North Vietnam are types of food grown and processed in South and South Central China in areas around Canton. Food exports from North China, including vegetable oils, corn, soybeans, and processed vegetables, are grown generally in the areas north of Shanghai.

General Cargoes

The main center for Chinese truck production is the Chang-chun Truck Factory in Northeast China. Although there are a number of other smaller factories producing trucks in China, it is highly likely that most of the trucks sent to Vietnam are produced at Chang-chun. Other types of industrial and consumer goods are also produced in the Shanghai area.

Fertilizer

Current Chinese shipments of fertilizer are very small relative to shipments of past years. Most of the Chinese fertilizer shipped to North Vietnam is likely to originate at the Canton Nitrogenous Fertilizer Plant in South China.

Textiles

Although there is some textile production in South China, the main center of textile production is the Shanghai area. Small amounts of textiles undoubtedly move into North Vietnam from South China, but large shipments are most likely to originate in the Shanghai area.

Iron and Steel Products

Most of North Vietnam's requirements for iron and steel products can be met by the Canton Iron and Steel Works in South China. Products not available here can be supplied either from the Wuhan Iron and Steel Works in Central China or from steel-making facilities in the Shanghai area.

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Cement

Cement production facilities in South China, particularly in the Canton area, are probably the source of most cement shipments to North Vietnam.

Imports from North Korea

North Korean shipments of fertilizer to North Vietnam have been negligible in 1969. Most of the fertilizer shipped in 1968 has been produced at the Hamhung Chemical Fertilizer Plant on the east coast of North Korea and shipped from nearby ports. The small volumes of general and miscellaneous cargoes from North Korea come from the industrial areas around P'yongyang, Chongjin, and Wonsan.

Imports from Eastern Europe

More than 90 percent of the shipments from East Germany and Poland consist of general cargoes such as electrical machinery, vehicles, and electronic equipment. About one-fourth of the shipments from Bulgaria and Romania consist of foodstuffs, with most of the remainder being general and miscellaneous industrial goods. Romania also ships small amounts of petroleum. Cargo originating in Czechoslovakia is primarily manufactured goods. Most of these goods are shipped out of Polish Baltic ports.

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Question 3. Can you analyze how each type of commodity from each source would be rerouted and how much time this would take?

This response is limited to the overland diversion of those cargoes making up the 1,200 tons a day from European ports. This diversion would undoubtedly be the most troublesome for the internal Eastern Europe and Soviet rail transport systems. The sea-borne diversion to Fort Bayard would involve only a change in the destination of the shipping involved and would not increase the voyage time for these ships by even 24 hours.

European USSR

General and Miscellaneous Cargo

The largest category of goods is general and miscellaneous cargo such as machinery, transportation equipment, building materials, clothing, and other consumer durables. For the year ending 30 June 1969, a total of 174,600 tons of such cargo was shipped via the Black Sea to North Vietnam. The diversion would involve the rerouting of these tonnages from Western USSR, principally in the region of Moscow to Omsk, the point of entry for the Trans-Siberian Railroad. Instead of goods traveling by rail from Moscow to Odessa, a distance of 946 miles, they would be sent eastward a distance of approximately 1,682 miles to Omsk. Thus the added burden is only about 740 miles, the equivalent of 2-3 days' travel time.

Other Commodities

The petroleum leaving Black Sea ports amounts to only 20 tons a day. It would have to move north and east to Omsk for a distance of 2,224 miles, compared with a haul of less than 200 miles to the Black Sea, an added travel time of about 7-10 days. Approximately the same distances and travel time would be required for diverting the small amount of Soviet petroleum -- 4,500 tons -- exported from Baltic ports.

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The 57,000 tons of fertilizer coming out of Black Sea ports would have to be rerouted from points of origin at Odessa, Severodonetsk, and Dneprodzerzhinsk and would add about 2-3 days' travel time.

Food shipments from Black Sea ports originate in the region around Kiyev. Their diversion to the Trans-Siberian Railroad would mean an additional travel time of about 7-10 ~~weeks~~ ^{days}.

It should be noted that even with these additional travel times within the USSR the overland trip would still be one to two weeks shorter than the 35-40 day sea voyage from European ports.

Eastern Europe*

The diversion of seaborne shipments to North Vietnam from East European countries to rail transit through the USSR would add about 550 tons per day to the total transit burden on the Soviet rail system. This total probably would be placed on the Trans-Siberian Railroad at Omsk, having come either from the southerly Soviet transborder point at Reni or the more northerly points at Brest and Chop. In transiting the European countries, the rail distances to the Soviet border transloading points probably would not be much greater than the rail distances to either Baltic or Black Sea ports. Therefore, the internal burden on East European rail transport would not be significantly changed by diverting seaborne shipments to rail.

Rail shipments from Eastern Europe, however, would, for the most part, have to be transloaded at the Soviet European border to be transferred to Soviet-gauge rail cars. The totals that would be passing

* This discussion is also applicable to the small volumes originating in Western Europe which normally are carried by Polish-flag ships.

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through these transloading points are very small as shown in the following tabulation:

<u>From</u>	<u>Transborder Point</u>	<u>Tons per Day</u>
Poland and East Germany	Brest/Terespol'	220
Czechoslovakia, Hungary, and Albania	Chop/Zahoni	115
Romania and Bulgaria	Reni/Galati	220

More than 90 percent (200 tons per day) of the shipments through Brest from East Germany and Poland would consist of general and miscellaneous cargoes, including electrical machinery, vehicles, and electronic equipment. The average distance to Omsk on the Trans-Siberian would be approximately 2,300 miles from Brest. Goods from Bulgaria and Romania transiting the Soviet border at Reni/Galati would total 220 tons per day, of which about 50 tons per day would be food, less than 40 tons POL, and most of the remainder general and miscellaneous goods that would include vehicles, machinery, and electric motors. The average distance from Reni to Omsk would be about 2,670 miles. Cargo transiting the Czechoslovak-Soviet border point at Chop/Zahoni would total about 115 tons per day and would consist largely of miscellaneous manufactures and only small amounts of food and POL. Goods from Chop to Omsk would move an average of 2,600 miles. Thus the added travel time for diversion of goods from Eastern Europe would be about 17 days.

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Question 5. How was the reorientation time of two weeks mentioned on page 11 calculated? For example, when considering where the seaborne POL is coming from now (I infer that most USSR/Eastern Europe petroleum does not come over the Trans-Siberian) how can an overland rail operation be set up that quickly? Would POL for Soviet use be diverted to NVN? Do the Soviets have substantial POL storage facilities near or on the Trans-Siberian and near the route through China?

a. The judgment that the reorientation time for the overland diversion of seaborne exports to the Trans-Siberian Railroad would take two weeks is an estimate not a calculation. It is based on consideration of a number of factors. An overriding consideration is the fact that the railroad systems in Communist countries are very highly centralized and are adequately linked by telephone and telegraph communication with Moscow. Moreover, the rail systems in the USSR have military reserves of cars in the civilian fleet which are earmarked for call-up for military purposes, so that we assume there could be a ready response if Moscow gave the diversion adequate priorities. In addition, the number of additional freight cars that would be required -- 700 cars -- is extremely small, and many of these cars could be those that were formerly engaged in movements to and from the sea ports. Other considerations are the small increment in rail travel time brought about by the rerouting of the trade, as discussed in the response to Question 3, and the fact that the entire diversion is the equivalent of only one train a day.

There are numerous examples in Soviet transportation history of rapid adjustments of the rail network to meet unusual, seasonal, or emergency conditions. Each autumn, for example, the Soviet transportation system is mobilized to handle the grain harvest. Upwards of 40,000 rail cars are diverted within a very short period of time to carry grain from the Soviet "New Lands" and the Ukraine to processing centers in the Russian Republic. A year ago, the Soviet rail system handled without major difficulty the deployment of some 20 divisions to the Czechoslovak border for

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the occupation of that country. This deployment was largely completed within two to three weeks. Later the USSR dispatched 10,000 rail cars to Czechoslovakia with emergency economic aid, literally within 48 hours of the decision to do so.

b. The petroleum delivered to North Vietnam cannot be regarded as a diversion from Soviet use. The export of some 290,000 tons of Soviet petroleum need only be compared with annual exports of 85 million tons, half of which goes to Free World countries.

c. There are numerous bulk oil storage sites representing substantial capacity located along the Trans-Siberian Railroad eastward from Omsk to the Far East and also along the main north-south rail lines in Communist China.

The demand for petroleum in bulk in North Vietnam is so small -- an average of about 900 tons per day normally delivered by sea -- that storage facilities at the source or en route would represent no limitation on the ability to supply petroleum to North Vietnam by land. If necessary, bulk storage at the refineries at Irkutsk in Eastern Siberia and Komsomolsk and Khabarovsk in the Soviet Far East could be used to load directly into rail tank cars for movement to North Vietnam. The tonnage is so small that only one reasonably sized storage facility would be required to support the flow to North Vietnam.

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

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EYES ONLY

October 9, 1969

TO: CIA, Room 4F 18

REF: CIA IM "North Vietnam's Alternative Means of
Maintaining Import Traffic"

Here are some rough questions indicating our concerns.

Reorientation of Imports

Table on page 2 shows that 1,040,000 tons of seaborne imports came from USSR/Eastern Europe in FY 69. This is equivalent to 90,000 tons/month, 3,000 tons/day. It is broken down as follows:

Total	1,040,000 tons	ca. 3,000 tons/day
Food	330,000 "	920 "
Fertilizer	60,000 "	180 "
Petroleum	290,000 "	900 "
Gen'l & Misc	350,000 "	1,000 "

On page 10 it is noted that 70% of imports from the Soviet Union is shipped from Vladivostak (on page 16 it says "70% of the seaborne imports originated in Far Eastern ports;" is this the same 70%?) ✓
and that 1,200 tons/day would have to be diverted from European ports. From discussion on pages 10-11, I infer that POL constitutes about 60% of this additional tonnage or 720 tons/day. ✓

Questions:

1. How is the figure 1,200 tons/day derived? It is more than 30% of 3,000 tons/day and, a fortiori, more than 30% of the "imports from the Soviet Union." ✓

2. Can you show the origins of the shipments of each category of imports (either port of origin or, if possible, inland point of shipment)?

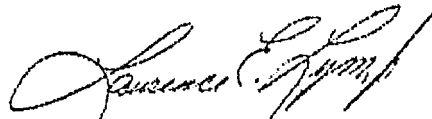
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3. Can you analyze how each type of commodity from each source would be rerouted and how much time this would take?

4. How are the estimate of Trans-Siberian rail capacity derived?

5. How was the reorientation time of two weeks mentioned on page 11 calculated? For example, when considering where the seaborne POL is coming from now (I infer that most USSR/Eastern Europe petroleum does not come over the Trans-Siberian), * how can an overland rail operation be set up that quickly? Would POL for Soviet use be diverted to NVN? Do the Soviets have substantial POL storage facilities near or on the Trans-Siberian and near the route through China?



Laurence E. Lynn, Jr.

* However, I do not understand how, of 80,000 tons enroute to NVN by ship at any given time, only 7,000 would be petroleum/as page 18 indicates.

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EYES

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6 October 1969

MEMORANDUM FOR: Dr. Laurence E. Lynn, Jr.
Assistant for Programs
National Security Council

SUBJECT : 1 October Request

1. Attached for your use and information are two memoranda prepared in response to the request you leveled during our 1 October conversation.

(1) The first of these, "North Vietnam's Alternative Means of Maintaining Import Traffic," represents, in effect, an amplification and expansion of the preliminary study of North Vietnam's overland alternatives to seaborne imports that was sent to you on Thursday, 2 October.

(2) The second, "North Vietnamese Capabilities to Counter a US Course of Action" constitutes our response to the analysis you requested of North Vietnam's capacity for quick response to a mining program.

2. These two memoranda were prepared quickly and with the participation of a very limited number of officers to meet your double criteria of speed and security.

George A. Carver, Jr.
Special Assistant for Vietnamese Affairs

Attachments

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